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SPACE OPERATIONS CONTROL CENTER

SATELLITE SITUATION REPORT

VOL. 3, NO. 8

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APRIL 10, 1963

GODDARD SPACE FLIGHT CENTER

GREENBELT, MD.



SPACE OPERATIONS CONTROL CENTER
GODDARD SPACE FLIGHT CENTER
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

VOLUME 3 NO. 8

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THE FOLLOWING REPORT REFLECTS DATA COMPUTED AND COMPILED BY THE
GODDARD SPACE FLIGHT CENTER, NORAD, AND SMITHSONIAN ASTROPHYSICAL
OBSERVATORY AS OF 1430Z ON APRIL 10, 1963.

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>NODAL PERIOD</u>	<u>INCLINATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1958 LAUNCHES								
ALPHA 1	EXPLORER 1	US	1 FEB	105.1	33.19	1668	343	
BETA 1	ROCKET BODY	US	17 MAR	138.2	34.25	4330	640	
BETA 2	VANGUARD 1	US	17 MAR	133.9	34.25	3937	660	108.023 &
1959 LAUNCHES								
ALPHA 1	VANGUARD 2	US	17 FEB	125.3	32.86	3281	563	
ALPHA 2	ROCKET BODY	US	17 FEB	129.6	32.91	3664	561	
ETA 1	VANGUARD 3	US	18 SEP	129.7	33.32	3699	536	
MU 1*	LUNIK 1	USSR	2 JAN	449D	0.01	1.315AU	0.9766AU	
NU 1*	PIONEER 4	US	3 MAR	398D	1.30	1.142AU	0.9871AU	
IOTA 1	EXPLORER 7	US	13 OCT	101.1	50.30	1069	558	
IOTA 2	ROCKET BODY	US	13 OCT	100.9	50.28	1073	534	
1960 LAUNCHES								
ALPHA 1*	PIioneer 5	US	11 MAR	312D	3.35	0.995AU	0.8061AU	
BETA 1	ROCKET BODY	US	1 APR	99.0	48.36	737	697	
BETA 2	TIROS 1	US	1 APR	99.1	48.36	757	684	
BETA 3	NONE	US	1 APR	97.8	48.48	702	614	
BETA 4	NONE	US	1 APR	99.8	48.15	801	706	
GAMMA 2	TRANSIT 1B	US	13 APR	94.2	51.23	609	360	
GAMMA 4	NONE	US	13 APR	96.7	51.25	731	479	
EPSILON 3	NONE	USSR	15 MAY	92.2	64.97	502	260	
ZETA 1	MIDAS 2	US	24 MAY	94.2	33.04	524	450	
ETA 1	TRANSIT 2A	US	22 JUN	101.6	66.71	1054	617	
ETA 2	GREB	US	22 JUN	101.6	66.72	1052	616	
ETA 3	ROCKET BODY	US	22 JUN	101.4	66.68	1034	616	
IOTA 1	ECHO 1	US	12 AUG	115.4	47.19	1513	1441	
IOTA 2	ROCKET BODY	US	12 AUG	118.0	47.23	1679	1509	
IOTA 3	METAL OBJECT	US	12 AUG	118.2	47.22	1685	1519	
IOTA 4	METAL OBJECT	US	12 AUG	118.2	47.22	1685	1519	INSUFFICIENT OBSERVATIONS
IOTA 5	METAL OBJECT	US	12 AUG	118.3	47.28	1671	1549	

OBJECT	CODE NAME	SOURCE	OBJECTS IN ORBIT		INCLINATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S.)
			LAUNCH	NODAL PERIOD				
1960 LAUNCHES								
NU 1	COURIER 1B	US	4 OCT	106.9	28.34	1209	969	
NU 2	ROCKET BODY	US	4 OCT	106.4	28.23	1224	911	
XI 1	EXPLORER 8	US	3 NOV	112.3	49.96	2250	425	
XI 2	ROCKET BODY	US	3 NOV	112.0	49.96	2228	416	
XI 3	NONE	US	3 NOV	109.9	49.37	2045	404	
XI 4	NONE	US	3 NOV	111.0	50.51	2118	429	
PI 1	TIROS 2	US	23 NOV	98.2	48.49	739	610	
PI 2	ROCKET BODY	US	23 NOV	98.1	48.48	738	601	
PI 3	NONE	US	23 NOV	98.1	48.52	728	615	
PI 4	NONE	US	23 NOV	98.2	48.45	713	643	
1961 LAUNCHES								
ALPHA 1	SAMOS 2	US	31 JAN	94.8	97.42	546	468	
ALPHA 2	METAL OBJECT	US	31 JAN	94.8	97.43	536	472	
GAMMA 1*	VENUS PROBE	USSR	12 FEB	300D	0.58	1.0190AU	0.7183AU	
DELTA 1	EXPLORER 9	US	16 FEB	117.0	38.89	2525	582	
DELTA 2	ROCKET BODY	US	16 FEB	118.4	38.83	2597	632	
DELTA 3	NONE	US	16 FEB	INSUFFICIENT OBSERVATIONS				
KAPPA 1	EXPLORER 10	US	25 MAR	POSITION UNCERTAIN				
NU 1	EXPLORER 11	US	27 APR	107.9	28.79	1785	492	
OMICRON 1	TRANSIT 4A	US	29 JUN	103.8	66.81	995	883	
OMICRON 2	INJUN - SR- 3	US	29 JUN	103.8	66.81	997	883	
OMICRON 3-186**	METAL OBJECTS	US	29 JUN	INSUFFICIENT OBSERVATIONS				
RHO 1	TIROS 3	US	12 JUL	100.3	47.89	833	723	
RHO 2	ROCKET BODY	US	12 JUL	100.3	47.88	798	753	
RHO 3	METAL OBJECT	US	12 JUL	98.8	47.92	791	617	
RHO 4	METAL OBJECT	US	12 JUL	101.9	47.82	948	759	
SIGMA 1	MIDAS 3	US	12 JUL	161.5	91.22	3575	3314	
SIGMA 3	METAL OBJECT	US	12 JUL	161.2	91.16	3550	3312	
SIGMA 4	METAL OBJECT	US	12 JUL	161.9	91.17	3569	3353	
UPSILON 1	EXPLORER 12	US	16 AUG	INSUFFICIENT OBSERVATIONS				
A DELTA 1	MIDAS 4	US	21 OCT	166.0	95.87	3762	3489	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>NODAL PERIOD</u>	<u>INCLINATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S.)</u>
1961 LAUNCHES								
A DELTA 3	METAL OBJECT	US	21 OCT	165.6	95.85	3717	3502	
A DELTA 4	METAL OBJECT	US	21 OCT	166.4	95.87	3770	3515	
A ETA 1	TRANSIT 4B	US	15 NOV	105.6	32.43	1114	948	
A ETA 2	TRAAC	US	15 NOV	105.6	32.44	1114	950	
A ETA 3	ROCKET BODY	US	15 NOV	105.5	32.42	1111	938	
1962 LAUNCHES								
ALPHA 1*	RANGER 3	US	26 JAN	406.4D	.3988	1.163AU	0.9839AU	
ALPHA 2	ROCKET BODY	US	8 FEB	100.3	48.27	84.6	706	
BETA 1	TIROS 4	US	8 FEB	101.3	48.14	938	708	
BETA 2	ROCKET BODY	US	8 FEB	99.4	48.41	762	705	
BETA 3	METAL OBJECT	US	8 FEB	100.2	48.26	832	715	
BETA 4	METAL OBJECT	US	8 FEB	95.9	32.83	591	549	136.744
ZETA 1	ORB.SOL.OBS.1	US	7 MAR	95.9	32.84	589	555	
ZETA 2	ROCKET BODY	US	7 MAR	90.4	90.88	371	213	
ETA 1	COSMOS 2	USSR	6 APR	94.4	48.59	796	187	
ETA 2	COSMOS 2	USSR	9 APR	153.0	86.67	3415	2780	
ETA 3	COSMOS 2	USSR	9 APR	152.7	86.64	3366	2798	
KAPPA 1	ARIEL	US	9 APR	153.4	86.59	3401	2822	
KAPPA 2	ROCKET BODY	US	23 APR	INSUFFICIENT OBSERVATIONS				
KAPPA 3	ARIEL	US/UK	26 APR	100.7	53.87	1190	396	136.407
KAPPA 4	ROCKET BODY	US/UK	26 APR	100.6	53.88	1186	397	
MU 2	OMICRON 1	US	15 MAY	92.4	82.32	499	277	
OMICRON 2	ROCKET BODY	US	28 MAY	91.6	48.97	535	178	
SIGMA 1	COSMOS 5	USSR	18 JUN	91.5	82.13	358	332	
UPSILON 1	OMEGA 1	US	19 JUN	100.4	58.07	980	583	
UPSILON 2	TIROS 5	US	19 JUN	100.4	58.07	972	583	
UPSILON 3	ROCKET BODY	US	19 JUN	101.7	58.17	1093	590	
UPSILON 4	METAL OBJECT	US	19 JUN	99.1	57.97	868	565	136.234; 136.923
EPSILON 1	TELSTAR 1	US	10 JUL	157.7	44.80	5637	955	
EPSILON 2	ROCKET BODY	US	10 JUL	157.6	44.83	5627	952	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>NODAL PERIOD</u>	<u>INCLINATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1962 LAUNCHES								
A XI 1	COSMOS 8	USSR	18 AUG	91.1	48.94	430	235	
A OMICRON 1		US	23 AUG	99.6	98.63	861	611	
A OMICRON 2		US	23 AUG	98.3	98.64	753	599	
A OMICRON 3		US	23 AUG	100.9	98.62	981	613	
A OMICRON 4		US	23 AUG	99.6	98.64	860	612	
A RHO 1*	MARINER 2	US	27 AUG	348D	1.66	1.229AU	0.7046AU	
A RHO 2	ROCKET BODY	US	27 AUG					
A UPSILON 1		US	1 SEP	93.6	82.82	600	299	
A PSI 1	TIROS 6	US	18 SEP	98.7	58.29	716	681	136.233;136.922
A PSI 2	ROCKET BODY	US	18 SEP	98.7	58.28	714	677	
A PSI 3	METAL OBJECT	US	18 SEP	99.4	58.44	762	697	
A PSI 4	METAL OBJECT	US	18 SEP	98.0	58.19	688	642	
B ALPHA 1	ALOUETTE	CANADA	29 SEP	105.5	80.45	1040	993	136.979;136.593 \$
B ALPHA 2	ROCKET BODY	US	29 SEP	105.5	80.46	1034	994	
B ALPHA 3	METAL OBJECT	US	29 SEP	105.4	80.56	1022	1000	
B ALPHA 4	METAL OBJECT	US	29 SEP	105.5	80.44	1037	997	
B GAMMA 1	EXPLORER 14	US	2 OCT	2184.6	37.36	97536	1252	136.440
B GAMMA 2	ROCKET BODY	US	2 OCT					
B ETA 1	RANGER 5	US	18 OCT	370D				
B ETA 2	ROCKET BODY	US	18 OCT					
B KAPPA 1	EXPLORER 15	US	26 OCT	144.6	71.41	5294	195	
B LAMBDA 1	ROCKET BODY	US	27 OCT	314.8	17.98	17605	317	
B LAMBDA 2	ANNA 1B	US	31 OCT	107.8	50.15	1172	1088	
B MU 1	ROCKET BODY	US	31 OCT	107.5	50.13	1146	1086	
B MU 2		US	13 DEC	114.9	70.36	2672	227	
B TAU 1	INJUN 3	US	13 DEC	115.6	70.40	2727	233	
B TAU 2		US	13 DEC	103.4	70.31	1622	218	
B TAU 3		US	13 DEC	114.2	70.37	2600	233	
B TAU 4		US	13 DEC	114.9	70.37	2620	275	
B TAU 5		US	13 DEC	115.4	70.33	2713	234	
B TAU 6		US	13 DEC	185.0	47.52	7442	1320	136.140
B UPSILON 1	RELAY 1	US	13 DEC	184.8	47.46	7451	1294	
B UPSILON 2	ROCKET BODY	US						

OBJECTS IN ORBIT									
<u>OBJECT</u>	<u>CODE NAME</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>NODAL PERIOD</u>	<u>INCLINATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>	
1962 LAUNCHES									
B CHI 1	EXPLORER 16	US	16 DEC	104.3	52.00	1186	744	136.860;136.200 \$	
B PSI 1	TRANSIT 5A	US	19 DEC	99.2	90.61	742	689		
B PSI 2		US	19 DEC	97.9	90.72	735	575		
B PSI 3		US	19 DEC	99.1	90.63	742	688		
B PSI 4		US	19 DEC	100.3	90.49	824	715		
INTERNATIONAL DESIGNATION									
	<u>NA SA CODE</u>	<u>CODE NAME</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>NODAL PERIOD</u>	<u>INCLINATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1963 4A	1963 N1A	SYNCOM	US	14 FEB	1426.5	33.51	36974	34228	
1963 4B	1963 N1B	ROCKET BODY	US	14 FEB	606.0	33.12	34435	271	
1963 9A	1963 N2A	EXPLORER 17	US	3 APR	96.4	57.59	922	249	136.560;136.317 \$
1963 9B	1963 N2B	ROCKET BODY	US	3 APR	96.2	57.59	911	248	

* APHELION, PERIHELION IN ASTRONOMICAL UNITS, INCLINATION TO ECLIPTIC.

** ONE HUNDRED AND EIGHTY FOUR METAL OBJECTS HAVE BEEN IDENTIFIED AS HAVING BEEN LAUNCHED WITH 1961 OMICRON 1 AND 1961 OMICRON 2. OBJECTS OF THIS SERIES THAT HAVE DEAYED CAN BE FOUND IN THE DEAYED OBJECTS LISTS.

\$ TRANSMITTING ON COMMAND ONLY.

& TRANSMITTING WHEN IN SUN LIGHT ONLY.